

Amendments to the Claims

This listing of the claims replaces all prior versions and listing of the claims in the present application.

Listing of Claims

1. (currently amended) A closed single-use system for mixing, storing and homogenizing liquids, comprising:

a rigid container (1) fitted with a non-invasive pump (4), said container (1) enclosing a generally parallelepipedic single-use bag (2),

wherein the lower face of the bag includes an orifice for the liquid to discharge to the outside of the bag, the upper face includes an orifice for the liquid to return through which said liquid returns to the inside of the bag,

said orifices being connected in fixed manner by an external mixing duct (3) which is inserted into the pump (4) which, during operation, allows the closed-circuit circulation of the liquid taken from the bottom of said bag (2), the pump (4) being open so that the mixing duct (3) is insertable into and extractable from the pump,

wherein the mixing duct is connected to the upper face of the single-use bag so that the mixing duct discharges directly into an upper-most part of the bag, and wherein the mixing duct is connected to the lower face of the single-use mixing bag so that the mixing duct takes in fluid directly from a lower-most

part of the bag opposite the upper-most part.

2. (previously presented) The system according to claim 1, wherein a bottom (7) of the container (1) is fitted with an elongated slit (8) allowing the insertion and the passage of the mixing duct (3).

3. (previously presented) The system according to claim 2, further comprising a device (20, 27) which can be shifted parallel to the bottom of the container in order to partially close the slit (8).

4. (previously presented) The system according to claim 1, wherein the container (1) includes one or two side doors (5, 6) in order to allow the installation of the bag (2).

5. (previously presented) A closed single-use system for mixing, storing and homogenizing liquids, comprising:

    a rigid container (1) fitted with a non-invasive pump (4), said container (1) enclosing a generally parallelepipedic single-use bag (2);

    wherein the lower face of the bag includes an orifice for the liquid to discharge to the outside of the bag, the upper face includes an orifice for the liquid to return through which said liquid returns to the inside of the bag;

    said orifices being connected in fixed manner by an external mixing duct (3) which is inserted into the pump (4) which, during operation, allows the closed-circuit circulation of the liquid taken from the bottom of said bag (2), the pump (4) being open so

that the mixing duct (3) is insertable into and extractable from the pump,

wherein the container (1) is fitted with a bottom wall (7') which is movable horizontally and is fitted with one or more elongated slits.

6. (previously presented) The system according to claim 4, comprising two of the side doors (5, 6) that each has a flap that comprises a vertical U-section, the U-sections having openings facing each other and into which a profiled plate (21) is slid and adjusted in order to keep the flaps of the side doors (5, 6) held in the closed position.

7. (previously presented) The system according to claim 6, wherein a central part of the profiled and adjusted plate (24) is coplanar with the internal surface of the two side doors (5, 6).

8. (previously presented) The system according to claim 4, comprising two of the side doors (5, 6) that each has a flap that includes a gate (23) fitted with fastenings cooperating with systems provided on the other side door (5, 6) in order to keep said flaps in the closed position.

9. (previously presented) The system according to claim 8, wherein a central part (22) of said gate (23) is coplanar with the internal surface of the two side doors (5, 6) of the container (1).

10. (previously presented) The system according to claim 4, comprising two of the side doors (5, 6) that each has a flap with

a U-section, the U-sections having openings turned away from each other and into which a profiled plate is slid and adjusted (24), the plate comprising two U-bends, the openings facing each other, in order to keep the flaps of the side doors (5, 6) in the closed position.

11. (previously presented) The system according to claim 10, wherein a central part (22) of the profiled and adjusted plate (24) is coplanar with the two side doors (5, 6) and forms a channel in which the mixing duct (3) can be installed in order to protect it.

12. (previously presented) The system according to claim 1, wherein a protection of the mixing duct (3) is integrated in a door (6) of the container that includes a gate flap (25).

13. (currently amended) A method for mixing compounds, comprising the steps of:

installing a single-use bag (2) in a rigid container (1) fitted with a non-invasive pump (4),

connecting lower and upper faces of the single-use bag (2) in fixed manner by a mixing duct (3),

removably inserting the duct (3) into the non-invasive pump (4), and

actuating said pump to produce a closed-circuit circulation of the liquid or liquids introduced into the container (1) in order to carry out the mixing,

wherein the connecting step includes connecting the mixing

duct to the upper face of the single-use bag so that the mixing duct discharges directly into an upper-most part of the bag, and connecting the mixing duct to the lower face of the single-use mixing bag so that the mixing duct takes in fluid directly from a lower-most part of the bag opposite the upper-most part.

14. (previously presented) The method according to claim 13, wherein the pump (4) causes the mixture to circulate with a flow rate of 6 to 1500 liters per minute.

15-16. (canceled)